

IN THE CLAIMS

Please amend the claims as follows.

--1. (Twice Amended): A semiconductor laser device, comprising:

a doped semiconductor cladding layer;

an undoped semiconductor optical confinement layer;

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an undoped semiconductor spacer layer positioned between said cladding layer and said optical confinement layer and in physical contact with both said cladding layer and said optical confinement layer and wherein said undoped semiconductor spacer layer has a thickness that is less than a thickness of said doped semiconductor cladding layer;

a light-generating layer disposed over said optical confinement layer; and

a first electrode and second electrode for supplying an electrical current to said light generating layer.

12. (Twice Amended) A semiconductor laser device, comprising:

a semiconductor substrate;

an n-doped semiconductor lower cladding layer;

an undoped semiconductor lower optical confinement layer;

B²
an undoped semiconductor spacer layer between said lower cladding layer and said lower optical confinement layer and in physical contact with both said cladding layer and said optical confinement layer and wherein said undoped semiconductor spacer layer has a thickness that is less than a thickness of said doped semiconductor cladding layer;

a semiconductor active layer for generating light;

a semiconductor upper optical confinement layer;

a p-doped semiconductor upper cladding layer; and

electrodes for current injection to said device.

29. (Twice Amended) A semiconductor device comprising:

a first III - V semiconductor layer formed by MOCVD of n-doped semiconductor material,

a III - V semiconductor spacer layer formed by MOCVD of undoped semiconductor material deposited directly on said first III - V semiconductor layer,

B3 a second III - V semiconductor layer formed by deposition of undoped semiconductor material directly on said spacer layer, whereby lattice defects caused by said first III - V semiconductor layer are mitigated by said spacer layer, and

a first electrode and second electrode for sending an electrical current through said III-V semiconductor layers; wherein

C [said undoped semiconductor spacer layer is between said lower cladding layer and said lower optical confinement layer and in physical contact with both said cladding layer and said optical confinement layer and wherein said undoped semiconductor spacer layer has a thickness that is less than a thickness of said doped semiconductor cladding layer.

B4 34. (Amended) The semiconductor device of Claim [29] 33, wherein said optical confinement layer comprises a quaternary compound material.

36. (Amended) The semiconductor laser device according to Claim 1, wherein the spacer layer comprises a strain compensated superlattice layer.

B5 37. (Amended) A semiconductor laser device, comprising:

a doped semiconductor cladding layer;

a semiconductor optical confinement layer comprising a quaternary compound;

an undoped semiconductor spacer layer positioned between said cladding layer and said optical confinement layer;

a light-generating layer disposed over said optical confinement layer; and

BB a first electrode and second electrode for supplying an electrical current to said light generating layer; wherein

said undoped semiconductor spacer layer is in physical contact with both said doped semiconductor cladding layer and said semiconductor optical confinement layer and wherein said undoped semiconductor spacer layer has a thickness that is less than a thickness of said doped semiconductor cladding layer.--
